

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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Progress at U Plant Ancillary Facility demolition

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Waste Site Remediation (M. B. Lackey); and
- Reliability Projects (M. M. Belles).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor (M. B. Lackey).

NOTE: Unless otherwise noted, all information contained herein is as of the end of January 2005.

Notable Accomplishments

PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

Deactivation and Decommissioning:

U Plant Demolition Project: Structural demolition at the U Plant Ancillary Facilities began on January 19, 2005, and six structures were completed by mid-February. Demolition preparation (removing PCB ballasts, lights, mercury switches, oils, etc.), utility isolations, asbestos abatement, and characterization continued.

Canyon Disposition Initiative (CDI): The public comment period on the Proposed Plan for the 221-U Facility CDI was completed on January 31, 2005.

FH/RL co-hosted a CDI Technical Exchange which included participants from DOE-SRS, Idaho National Engineering and Environmental Laboratory (INEEL), DOE-HQ, Regulators, and other Hanford contractors.

Waste Site Remediation:

U Plant Regional Closure: Rev. 0 of the Proposed Plan (PP) was submitted to RL on February 3, 2005. Regulatory agency comments on the Feasibility Study (FS) were incorporated into Rev. 0; transmittal to RL is planned in early March. The Sample and Analysis Plan was revised for 26 sample points around the U Zone cribs per agreement with Ecology. A drilling contract was awarded on February 10, 2005, to obtain 26 samples. Sampling at 26 points is scheduled to start the week of February 20, 2005, and to finish sampling by the end of March.

BC Cribs and Trenches: The Proposed Plan was presented to the Hanford Advisory Board (HAB) River and Plateau Committee on February 9, 2005. Further High Resolution Resistivity (HRR) data acquisition is scheduled to start the week of February 20, 2005. The FS/PP comment incorporation is currently being finalized to support transmittal to regulatory agencies in April.

Notable Accomplishments, continued

Reliability Projects:

A-8 Substation: The Project L-325, A-8 Substation Replacement, pre-bid tour was provided to interested contractors on January 17, 2005. The Request for proposal (RFP) closed and contract award selection began on February 8, 2005. This FY 2005 line item project replaces major components (power transformers, circuit breakers, power cables, etc.) that have outlived their initial design life.

PBS RL-0041, Nuclear Facility D&D, River Corridor Closure Project

Uranium Disposition: A total of 420 boxes enriched uranium (fuel) were shipped from the 300 Area to the on-site Mixed Waste Trench through February 19, 2005.

Special Case Waste: The Advanced ALARA Assessment was completed allowing initiation of Special Case Waste load-out from A-Cell in the 327 Building.

300 Area D&D: A total of 12 structures were demolished through mid-February.

FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 89.9	\$ 84.3	\$ 5.6
RL-0041 Nuclear Facility D&D, River Corridor Closure	\$ 19.6	\$ 17.3	\$ 2.3
Total	\$ 109.5	\$ 101.6	\$ 7.9

FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$20.9	\$21.3	\$20.6	\$0.4	2.1%	\$0.8	3.5%	\$76.5
RL-0041 Nuclear Facility D&D, River Corridor Closure	\$5.0	\$5.3	\$4.5	\$0.2	4.7%	\$0.8	15.2%	\$19.4
Total	\$25.9	\$26.6	\$25.0	\$0.7	2.5%	\$1.6	5.9%	\$95.8

Numbers are rounded to the nearest \$0.1M.

FY 2005 Schedule/Cost Performance, continued

Schedule Performance (+\$0.7M/+2.5%):

The Waste Sites unfavorable schedule variance (-\$1.4M) is due to late start on BC Cribs preliminary design; delays to 200-PW-1 Plutonium/Organic-Rich Process Waste Group A-8 and Step 2 field investigations; and extended regulator reviews have delayed confirmatory sampling, remedial design, and planning for barrier construction at U Plant Waste Sites. This is offset by favorable progress on D&D activities (\$0.6M).

Impacts/Mitigation activities:

- Resources are being obtained to support BC Cribs remedial design.
- Delays to U Plant will be recovered during FY 2006 by performing RDR/RAWP reviews concurrently, beginning site prep early, and completing construction in a shorter amount of time.
- A-8 Borehole is still expected to be completed during FY 2005 as other waste site field work is completed and resources become available.

The favorable schedule variance (+\$1.4M) in Reliability Projects is due to progress in completing FY 2004 carryover work scope (+\$5.0M) offset by delays in initiating new starts due to continuing resolution and pending funding decisions related to the PHMC Priority List (-\$3.6M).

Impacts/Mitigation Activities:

- Prior year work scope will be completed by yearend.
- \$5.4M of FY 2005 work scope is projected to carry over into FY 2006.
- Additional \$1.4M yearend schedule variance projected;
 - o Deferral of capital equipment procurements.
 - o Authorization of 182-D Reservoir Liner (not funded).

RL-0041 – The favorable SV (+\$0.2M) is due to Uranium Shipments being accomplished ahead of plan.

Cost Performance (+\$1.6M/+5.9%):

The Waste Sites unfavorable cost variance (-\$1.1M) is due to additional costs to support the U Plant ROD process, decision documents, and barrier design planning; decommissioning of the S-7 borehole Uranium-Rich Process Waste Group (200-PW-2) and dismantlement of the drilling site cost more than expected. Additional expenses were incurred during continuing negotiations with Ecology on dispositioning Remedial Investigation Report comments; and due to replanning activities associated with the restart of the 216-A-4 borehole Miscellaneous Waste Group (200-MW-1) and unexpected levels of contamination on the drill casing at 216-T-28 300 Area Chemical Laboratory Waste Group (200-LW-1) increased decommissioning costs. This is offset by favorable cost variance for CP D&D (\$1.7M), PM&S (\$0.4M), and Surveillance and Maintenance (S&M) (\$0.1M).

Impacts/Mitigation Activities:

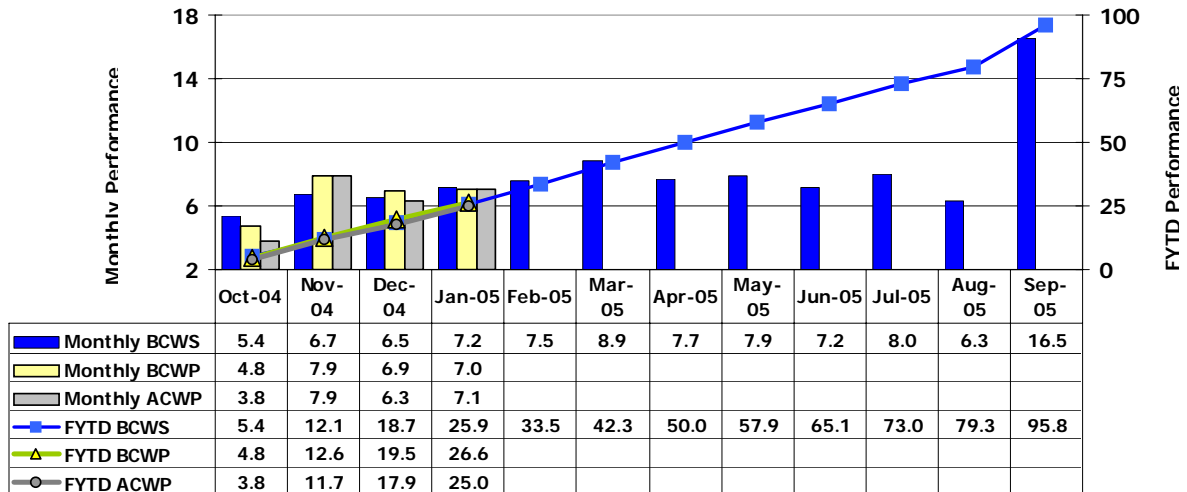
- U Plant Waste Sites overrun will be offset by completing carryover and FY 2005 confirmatory sampling more efficiently than planned.
- The 200-LW-1 and 200-PW-2 overruns may not be recoverable.

The unfavorable cost variance (-\$0.2M) in Reliability Projects is within established thresholds.

RL-0041 - The favorable cost variance is due to continued efficiencies for 300 Area S&M (+\$0.2M), Uranium Disposition (+\$0.4M), Special Case Waste Removal (+\$0.1M), and 300 Area Treated Effluent Disposal Facility (TEDF) (+\$0.2M). These favorable variances are slightly offset by and unfavorable cost variance for 300 Area D&D (-\$0.1M).

FY 2005 Schedule/Cost Performance, continued

Performance Analysis FYTD and Monthly (\$M)



Milestones

MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04	10/29/04		Completed ahead of schedule
WMG-05-001 M-091-40L-004	M-91-40L.1.D Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/01/04	11/12/04		Completed ahead of schedule
TRP-03-139 M-013-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04	12/20/04		Completed ahead of schedule
WMG-04-009 M-091-40K	M-91-40K Update 218-E-12B SAP	HQ	01/15/05	08/24/04		Completed ahead of schedule
WMG-05-010 M-091-40J	M-91-40J UPDATE 218-W-3A SAP	HQ	03/01/05			On schedule
WMG-05-005 M-091-40L-005	M-91-40L.2.A Submit Quarterly Burial Ground Vent and substrate Sample	HQ	03/01/05			On schedule
WMG-05-009 M-091-40I	M-91-40I Update 218-W-4B SAP	HQ	03/01/05			On schedule
WMG-05-006 M-091-40L-006	M-91-40L.2.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	06/01/05			On schedule
WMG-05-007 M-091-40L-007	M-91-40L.2.C Submit Quarterly Burial Ground Vent and substrate Sample	HQ	09/01/05			On schedule
TRP-03-260 M-015-46A	200 Area Chemical Lab Waste OUs Remedial Investigation Report.	HQ	10/31/05			On schedule
TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule

Milestones, continued

MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On schedule
WMG-06-001 M-091-40L-008	M-91-40L.2.D Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/01/05			On schedule
TRP-04-324	Issue Action Memorandum for U Plant Ancillary Facilities	RL	12/31/05	01/23/04		Completed ahead of schedule
TRP-04-323	Issue Record-of-Decision for Canyon Disposition Initiative	RL	12/31/05			On schedule
TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			On schedule
WMG-06-005 M-091-40L-009	M-91-40L.3.A Submit Quarterly Burial Ground Vent and substrate Sample	HQ	03/01/06			On schedule
TRP-04-320	Demolish Ten U Plant Ancillary Facility Structures	RL	03/31/06		09/30/05	Ahead of schedule
TRP-04-321	Demolish 10 B Plant Structures	RL	03/31/06	09/14/04		Completed ahead of schedule
TRP-04-325	Package, Ship and Dispose of Remaining N Reactor Fuel	RL	03/31/06		09/30/05	Ahead of schedule
WMG-06-006 M-091-40L-010	M-91-40L.3.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	06/01/06			On schedule
WMG-06-007 M-091-40L-011	M-91-40L.3.C Submit Quarterly Burial Ground Vent and substrate Sample	HQ	09/01/06			On schedule
TRP-03-266 M-015-46B	200 Area Chemical Laboratory Waste OUs Feasibility Study	HQ	09/30/06			On schedule
WDG-06-402	Remediate BC Cribs and Trenches	RL	09/30/06			On schedule
WDG-06-401	Remediation of U Plant Area Waste Sites	RL	09/30/06			On schedule
TRP-04-322	Demolish 12 additional B Plant Structures	RL	09/30/06	09/14/04		Completed ahead of schedule
TRP-04-326 M-092-06-T02	Complete the Disposal/Disposition of Un-Irradiated Metal Fuel	RL	09/30/06		09/30/05	Ahead of schedule